The wrong questions, still: A response to "Is inclusivity an indicator of quality of care for children with autism in special education" by E. Michael Foster and Erin Pearson

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The Wrong Question, Still: A response to "*Is inclusivity an indicator of quality of care for children with autism in special education*" by E. Michael Foster and Erin Pearson

Last year, there was an outcry by those of us who advocate for inclusive education when Disability Scoop featured the following headline: *Study: Inclusion May Not Be Best After All* (Diament, November 1, 2012). This article highlighted findings from a recently published article by E. Michael Foster and Erin Pearson (2012) titled, "Is inclusivity an indicator of quality of care for children with autism in special education?" Based on analyses of data collected by SRI International's National Longitudinal Transition Study (NLTS-2; SRI International, n.d.), Foster and Pearson found no systematic indication that the level of inclusivity improved future outcomes for students with autism. Instead, Foster and Pearson found that there were no outcome differences between the students who experienced greater inclusivity versus those who experienced less inclusivity. Ironically, the Disability Scoop headline could have just as easily been titled "*Study: Segregated education may not be best after all*."

The purpose of our response to Foster and Pearson's article is to highlight their study's methodology and the underlying basis for their research questions. We believe that it is critical that inclusion researchers counteract the message arising out of Disability Scoop's reporting of Foster and Pearson's article through a wider dissemination to audiences less familiar with where our field has been and the current state of inclusion research. Based on Foster and Pearson's article and the conclusion drawn in the Disability Scoop summary, it would appear that outside of the readership of TASH, the wrong questions continue to be the focus.

To better understand whether the conclusion drawn from Foster and Pearson's study bears merit, it is important to first examine the methodological issues within their study. For their analysis, Foster and Pearson used two waves of data for years two and four from the National

Longitudinal Transition Study-2 (SRI International, n.d.). Two NLTS-2 instruments provided the data for analysis: parent telephone interview and school program questionnaire.

Foster and Pearson defined inclusivity (or the treatment variable) as proportion of time spent in general education settings, and they grouped students according to amount of inclusivity into the following three groups: 1) 0% time in general education; 2) 1% to 74% time in general education; and 3) 75% to 100% time in general education. 215 students with autism (45%) were found to be in the first group and 82 (17%) were found to be in the third group. On this measure the 0% group was used as the reference category (the no treatment group), and comparisons between groups for inclusivity were conducted between this group and the 1% to 74% group and the 75% to 100% group. One can see the issue that arises from comparing a 1% to 74% group to a 0% group, because there is a significant range for the treatment variable.

An underlying assumption of the analyses was to treat inclusivity based on "dosage" where inclusivity could be analogous to a medication: that greater dosages would result in more positive benefits. Yet, researchers investigating the effects of inclusion as a treatment variable know all too well that programs defined by amount of time in general education settings do not describe the same "treatment." In fact, there is huge variability with implementation of inclusive programs, making it very unlikely that percentage of time alone would have a significant impact on outcomes for students with disabilities. For this reason, researchers must not only carefully define the treatment (beyond amount), but they must also report fidelity of implementation before evaluating treatment effects. We could no more say that prescribing a specific medication alone is sufficient to cure disease. It is how the medication regiment is followed and for what particular disease that will determine subsequent effectiveness. Furthermore, inclusivity as an independent variable cannot be studied in the same way that is typical of medical interventions

because inclusivity is defined in too many different ways. We have long ago learned that simply having a child in an inclusive setting without access to effective teaching and curriculum along with necessary supports is not likely to be beneficial. We abandoned the idea of "place and hope," realizing that "dumping" students with disabilities into general education classrooms had disastrous effects. It is what occurs in the general education setting that will determine positive outcomes. Educational treatments are a complex phenomenon and not one that can be defined by a single variable. For example, availability of family and community resources, family socio-economic status and educational levels often influence student outcomes.

Foster and Person's dependent variables were a calculated functional cognitive scale, college attendance, and not dropping out of high school. Although the NLTS-2 also collected scores on social skills and direct or indirect assessments (see: http://www.nlts2.org/studymeth/index.html#data_collection), these scores were not used as dependent measures. The functional cognitive scale was derived by creating a score based on how parents rated their children in four areas (cognitive, sensory, and motor skills in performing daily activities). Ratings were based on a scale of 1 (performs not at all well) to 4 (performs very well). These scores ranged from an overall score of 4 (not at all well for all 4 areas) to 16 (very well for all four areas). These ratings actually reflect parental perceptions of their child's performance rather than actual performance. Furthermore, the global nature of the ratings make these scores questionable for use as a reliable outcome measure. The other two dependent measures were whether the student dropped out of high school (was either currently still in high school or had graduated with either a certificate or General Educational Development certificate) and whether the student later attended college. These latter two measures are more likely the result of influences other than the student's exposure to the independent variable (inclusivity).

Typically, these programmatic variables are often dependent on the school, district, or state practices rather than exposure to a particular intervention. For example, some districts have college programs and some have effective drop-out prevention programs. As a result, amount of inclusivity would not likely affect these measures.

In conclusion, Foster and Pearson, in their efforts to simplify a construct such as inclusivity by equating inclusivity with the amount of time in general education settings have too narrowly defined the meaning of inclusion. Moreover, the identified dependent measures point to questionable outcomes. However, despite these methodological issues, the study could only state that student outcomes were no different whether they were exposed to a segregated setting or to an inclusive setting. Unfortunately, the *Disability Scoop* article failed to examine the study in detail and pronounced in its headline that "Study: Inclusion may not be best after all."

Asking the Right Questions: Towards a Definition of Inclusion

Rather than asking whether inclusion is best for all students, we believe that the key questions raised by Foster and Pearson's study is how one should define inclusion and what key outcomes are essential to measure. Research investigating the long-term effects of inclusion with large population samples is certainly needed. However, if the measures needed to answer key questions are not identified, then no conclusions can be drawn. Foster and Pearson state as much in their conclusion: "A fuller understanding of inclusivity and other potential measures of educational quality may have to wait for both better data and methods." (p. 184). And, they go on to say, "Even if the ignorability assumption is valid, it remains true that the effect measured here is that of a rather amorphous 'treatment.'" In fact, as defined by Foster and Pearson, they used an amorphous definition of inclusion. After decades of research, inclusion does not have to be an amorphous treatment. If it is still being treated as such, then those of us involved in

inclusion research need to get the word out about what is known in order to ensure that research focuses on the right questions along with the right variables.

So, what are the right questions to ask about inclusive education? To best answer this question, one must first consider where research on inclusion has been, and where it is going. We believe that this research can best be understood as encompassing three overlapping periods (Ryndak, Jackson, & White, 2013). Research into inclusive education began in the 1970s, at a time when the country was moving from deinstitutionalization and students with more severe disabilities were first being provided a public education (Richardson, 1994; Winzer, 1998). This first period of inclusion research focused on *access*; in other words, research focused on understanding if students with disabilities should, and could, be educated in general education settings (e.g., Brown et al., 1989; Brown, Nietupski, & Hamre-Nietupski, 1976; Taylor, 1988). Descriptive research and policy analysis questioned the assumption that students with disabilities should earn their way into inclusive environments. During this research period, we learned that students with disabilities could and should be included in general education, from both a policy and civil rights perspective.

The second period of inclusion research has focused on the *outcomes* of inclusion; in other words, research in this phase looked at the benefits of inclusive education for students with and without disabilities (Bellini & Akullian, 2007; Freeman & Alkin, 2000; Kurth & Mastergeorge, 2012). This period of inclusion research has demonstrated broad and consistent positive outcomes of inclusion as well as critical implementation variables. Although there continues to be research focusing on outcomes of inclusion, much of the current outcomes research seeks to make connections between features of inclusion and meaningful outcomes in order to better delineate the most promising features.

Currently, we are into what could be considered a third period of inclusion research. This period is focused on the *how* of inclusion; that is, understanding what features, at both the classroom level and systems-level, are necessary to make inclusion effective and systemic in order to translate the research from the second period into broader implementation (Prochnow, Kearney, & Carroll-Lind, 2000; Sailor & Roger, 2005).

In our view, Foster and Pearson's study asked the wrong question given the extant research on inclusion, including what as a field we already know, and what questions we are yet seeking to answer. This asking of the wrong question demonstrates a sobering reality that, as a field, we have not informed the broader community of our findings from the first two periods of inclusion research, leaving the larger community to find relevance in asking questions from phases one and two. We believe that better questions for large-scale analysis could focus on what features of inclusive practices (taken from the many studies already available) can be linked to meaningful outcomes such as self-determination, academic skills, and communication and social skills, to name just a few.

Conclusion

As disconcerting as the *Disability Scoop* piece was, along with the sobering realization that pediatricians reading Foster and Pearson's study may conclude that they should advise parents to question inclusive options for their children with autism, we can view this as an opportunity. It is apparent that defining inclusion to the broader public as well as professionals in other disciplines is essential. Let's use this as an opportunity to get research published in journals outside of our specific disciplines. Professionals in the medical, social, and political fields need access to our collective knowledge. We can guide them to ask the right questions

about inclusive practices and its benefits for all students with disabilities, including those with autism.

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